EPA REGION I
REMOVAL PRELIMINARY ASSESSMENT

Site Name and Location

Name: New Hampshire Dioxane Contamination Site **Location:** Emery and Belknap Drives
Town: Atkinson **County:** Rockingham **State:** New Hampshire (NH)

Site Status: **( ) NPL** **( ) NON-NPL** **( ) RCRA** **( ) TSCA**
(X) ACTIVE **( ) ABANDONED** **(X) OTHER** Residential

( ) Attached USGS Map of Location **(X) Site I.D. No.:** 01KA

Latitude: 42 º 50 ′ 57″ North **Longitude:** 71º 11′ 15.5″ West
(from the approximate intersection of the two roads, Emery and Belknap Drives)

Referral

( ) Citizen **( ) City/Town** **(X) State** **( ) Preremedial** **( ) RCRA**
( ) Other:

Name of referring party: New Hampshire Department of Environmental Services (NH DES) **Address:** PO Box 95, 6 Hazen Drive, Concord, NH 03302

Contacts Identified
1) David Bowen **Telephone:** (603) 271-2800
2) John Regan **Telephone:** (603) 271-3744

Source of Information

( ) Verbal:
( ) Report:
(X) Other: NH DES. 2011. *Environmental Fact Sheet: 1,4-Dioxane and Drinking Water*. Concord, New Hampshire.
Regan, John. 10 April 2012. *Draft Document of Site History*. Submitted to John McKeown, U.S. Environmental Protection Agency.

Potential Responsible Parties

Owner: still under investigation **Telephone:**( )
Address:

Operator: still under investigation **Telephone:**( )
Address:

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Site Access

Authorizing Person: Access through individual homeowners
Date: Not obtained at this time. **( )Obtained** **( )Verbal**
Telephone: ( ) **(X)Not Obtained** **( )Written**

Historical Preservation

( ) Site is Historically Significant or Eligible for Historic Preservation

Contacts Identified

1) State Historical Preservation Officer (SHPO)
Name: Elizabeth H. Muzzey **Telephone:** (603) 271-8850

2) Tribal Historical Preservation Officer (THPO)
Name: **Telephone:**( )
Comments:

Physical Site Characterization

Background Information:

The New Hampshire Dioxane Contamination Site (the site) is located along Emery and Belknap Drives in Atkinson, Rockingham County, New Hampshire. Additional sampling concluded that contamination was present along Brookside Terrace, Oak Ridge Drive, Deer Run Road, Westside Drive, Island Pond Road, and Stonewall Terrace. These residential roads are bordered by U.S. Route 111 to the northwest and U.S. Route 121 to the northeast. The Massachusetts state line is less than 5 miles away.

In October 2002, NH DES received drinking water analytical results from a residential well sample that indicated volatile organic compounds (VOCs) above NH DES's Ambient Groundwater Quality Standards (AGQS). The VOCs that exceeded the AGQS included the following (with the respective standard in parentheses): methyl tert butyl ether [13 micrograms per Liter (µg/L)] and 1,1-dichloroethane (81 µg/L).

In 2003, NH DES conducted drinking water sampling and identified three additional residential wells that had been impacted. Point of Entry (POE) treatment systems were installed at a total of four residences. NH DES continues to maintain the POEs at these residences.

During November/December 2011, NH DES collected drinking water samples from all the residences with POE systems and analyzed these samples for 1,4-Dioxane. NH DES conducted this additional analysis because 1,4-Dioxane is considered to be an "emerging contaminant" that requires a separate analysis to be detected at low concentrations. All four systems were sampled following

treatment and had levels that exceeded the NH DES's AGQS of 3 µg/L for 1,4-Dioxane.

In December 2011, NH DES started analyzing adjacent residential wells and a larger geographic area because of the results obtained from the wells with POE systems. These samples were analyzed for VOCs and 1,4-Dioxane by the NH Public Health Laboratory. From December 2011 to June 2012, 15 residential wells exceeded the NH DES's AGQS for 1,4-Dioxane and an additional 24 residential wells had detectable levels.

NH DES has determined the extent of the impacted area. They continue to collect drinking water samples, but have requested the assistance of the US Environmental Protection Agency (EPA) to review the site, complete an evaluation of mitigation options, and determine if further actions are warranted.

Description of Substances Possibly Present, Known or Alleged:

VOCs and 1,4-Dioxane.

Existing Analytical Data

( ) Real-Time Monitoring Data:

(X) Sampling Data: New Hampshire Public Health Laboratories, Department of Health and Human Services. 21 May 2012. Project ID: 04-1015024. Atkinson.

Potential Threat

Description of potential hazards to environment and/or population-identify any of the criteria for a Removal Action (from NCP) that may be met by the site under 40 CFR 300.415 [b] [2].

i. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants.

ii. Actual or potential contamination of drinking water supplies or sensitive ecosystems.

iii. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

iv. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

v. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

vi. Threat of fire or explosion.

vii. The availability of other appropriate federal or state response mechanisms to respond to the release.

viii. Other situations or factors that may pose threats to public health or welfare or the environment.

Prior Response Activities

( ) PRP **(X) STATE** **( ) FEDERAL** **( ) OTHER**

Brief Description: After discovering contamination in residential drinking water wells, NH DES has been conducting quarterly sampling to determine the extent of contamination.

Priority for Site Investigation

(X) High **( ) Medium** **Low ( )** **None ( )**
Comments:

Report Generation

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